

ABSTRACT OF THE DISCLOSURE

A channel estimate generator generates a plurality of channel estimates and a Doppler frequency estimator uses two or more channel estimates to generate a Doppler frequency estimate. The Doppler frequency estimator generates the
5 Doppler frequency estimate by calculating the normalized distance between two consecutive channel estimates. A receiver uses the Doppler frequency estimate to either (1) adjust the receiver, (2) estimate the velocity of the receiver, (3) determine whether it is necessary to search for new paths, or (4) predict or track new paths. The receiver can use a moving average of Doppler frequency
10 estimates or a weighted combination of Doppler frequency estimates from different paths of a received signal to calculate the Doppler frequency estimate.